

## Original Article

# Self-efficacy of people who are at risk of tuberculosis in the work area of the garuda public health center in Bandung

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### Abstract

**Aims :** This study aims to determine self-efficacy in individuals who are at risk for tuberculosis.

**Design :** This study used a descriptive method and was conducted in August 2019 with 119 respondents who were selected by using random s The number of samples is 119 respondents with inclusion criteria: respondents in their area there are TB cases, aged 18-45 years, can read and write, and do not have hearing or vision impairments. Exclusion criteria: have a mental disorder. Sampling was obtained through random sampling.

**Methodos :** This research is a quantitative descriptive research.

**Results :** this study has shown that more than half of the respondents have low self-efficacy as many as 63 people (52.9%).

**Conclusions :** self-efficacy in individuals who are at risk for tuberculosis is still low. The lack of knowledge that contributes to the prevention of tuberculosis is still a problem. Support from the environment and the closest people is needed so that family empowerment can increase self-efficacy

**KEYWORDS :** Risk, Self efficacy, Tuberculosis,

## INTRODUCTION

Tuberculosis (TB) is an infectious disease caused by *Mycobacterium tuberculosis* and is spread through droplets of infected people(1) .The ease of transmission of TB is a health problem in the world, as indicated by tuberculosis that still ranks as the 10th highest cause of death in the world in 2016 based on the WHO report. The risk of developing TB disease is increasing because about a quarter of the world's population has been infected with *Mycobacterium Tuberculosis* (2). TB cases in 2018 were mostly in the region in Southeast Asia (44%) and two thirds accounted for the global total, namely: India (27%), China (9%), Indonesia (8%), Philippines (6%), Pakistan (6%), Nigeria (4%), Bangladesh (4%) and South Africa (3%) (WHO, 2019). The WHO Global Tuberculosis Report, 2018 describes the incidence of tuberculosis in Indonesia in 2018 of 316 per 100,000 population and The death rate for tuberculosis patients is 40 per 100,000 population. The pillars of TB control in Indonesia include: integration of patient-centred TB services and treatment, a bold and clear support system policy and intensification of research and innovation. The world health agency sets a standard of treatment success at 85%. The success rate in 2017 was 87.8%



(data as of May 21, 2018)(1). Although it has achieved success rates, there has been an increase in new cases in Indonesia. TB cases in Indonesia have increased from 446,732 cases in 2017 and 566,623 cases in 2018 with the highest number in West Java Province(3). Active community involvement is one component of the support system for TB control so that there is no increase in cases.

The process of transmitting TB will be more risky for people living in the environment with TB sufferers, so prevention efforts are needed so as not to get infected. The most dominant risk factor for the incidence of TB in adults is contact with patients (4). Efforts to prevent the spread of TB require motivation, confidence and the ability to maintain their health. Self-efficacy is one of the key factors in the implementation of personal control, including control over one's own health condition (5). Self-efficacy can have an impact on individuals to feel, think, motivate themselves, and behave (6). Dimensions of Self efficacy which consists of 3 dimensions, including Magnitude (individual ability), strength (strength), and generality (belief) (7). Increasing self-efficacy towards TB prevention will provide motivation and a way for the community to act towards preventing an increase in TB cases. Self efficacy is needed for people who are at risk of pulmonary TB disease, so they can behave in a healthy manner and avoid things that can cause tuberculosis.

## METHODS

This research is a quantitative descriptive research. The questionnaire used was modified from the General Self Efficacy (GSE) (8). The General Self Efficacy questionnaire consisted of 16 valid questions with the lowest r value of 0.365 and the highest 0.746 with analysis of reliability test 0.858. This research questionnaire uses a Likert scale which contains exactly true statement by a score of 4, Enough is true that given a score of 3, Almost Untrue by a score of 2, Not At All were given a score of 1. The number of samples was calculated using G-power software Version 3.0.10 using the exact statistical test group, one sample case) with the assumption = 0.05, Large Effect Size = 0.15, Power level = 0.95. The number of samples is 119 respondents with inclusion criteria: respondents in their area there are TB cases, aged 18-45 years, can read and write, and do not have hearing or vision impairments. Exclusion criteria: have a mental disorder. Sampling was obtained through random sampling.

## RESULTS

Most of the respondents were male (60.5%), almost all of them were 26-35 years old (83%), Most worked in the private sector (52%), most of them had high school seniors (60.5%) and most have marital status is married (69.8%).

Table. 1 demographic data

demographic	f	%
<b>Gender</b>		
Female	47	39.5
male	72	60.5
<b>age</b>		
26 - 35	99	83.2
36- 45	20	16.8
<b>occupation</b>		
unemployment	24	20.2
entrepreneur	63	52.9
private employees	16	1.4
government employees	16	13.4
<b>Last education</b>		
Primary School	8	6.7
Junior high school	23	19.3
Senior high School	72	60.5
College	16	13.4
<b>Maritas status</b>		
married	83	69.8
single	16	13.4
divorce	20	16.8

The results of data analysis regarding self-efficacy in communities at risk for TB were obtained. Some people still have low self-efficacy

Table. 2 self efficacy

<i>dcx</i>	f	%
low	63	52,9
high	56	47,1
	119	100

## DISCUSSION

Self efficacy contributes to a better understanding of the health behavior change process. Several factors that affect individual self-efficacy are age, gender, level of education and experience (9). Self-efficacy is a social learning process during life, the older you are, the more you will be able to overcome problems because you are expected to have more



experience. Research in Japan found that age was positively related to the desire to act, net benefits, self-efficacy, and preventive behavior. The higher the level of education, the lower levels of vulnerability and cues to action and higher levels of social awareness, attention to ways, net benefits, and TB self-efficacy (10). The results showed that almost all respondents were in the early adult category (26-35 years). nother factor that has an impact on self-efficacy is the level of education that has been taken by the individual. The level of education related to the cognitive processes that take place during the learning process in education will form self-efficacy. This cognitive process will then underlie the individual's ability to motivate himself and show behavior in accordance with goals. The results of the study showed that most of the respondents' last education was high school with a total of 72 respondents (60.5%). Occupation is related to self-actualization and encourages individuals to be more confident and responsible in solving health problems so that their self-confidence increases. Individuals who have jobs tend to have abilities, have jobs related to self-actualization and encourage individuals to be more confident and responsible in solving health problems so that their self-confidence increases. Individuals who have jobs tend to have the ability to change lifestyles and have experience to know the signs and symptoms of illness, but self-confidence can decrease due to stressors found in work (11). Most of the respondents in this study were self-employed, amounting to 63 respondents (52.9%). Gender in this study, most of the respondents were male, namely 72 respondents (60.5%), Self efficacy in women was higher in managing their roles. Women who have roles other than as housewives, as well as career women will have high self-confidence compared to working men (5). Self-efficacy is a belief in an individual's ability to carry out and regulate the actions needed to solve a problem or achieve certain goals so that it can be one of the factors that will determine and motivate changes in health behavior (6,7,12). The results of research conducted on 119 respondents who are at risk for TB disease show that having low self-efficacy as many as 63 respondents (52.9%). Self-efficacy is the belief possessed by individuals who are at risk of contracting tuberculosis against their abilities, in this case, to prevent the transmission of tuberculosis to themselves and the surrounding environment. Dimensions of self-efficacy, including Magnitude, Strength, and Generality (7).

Magnitude is an individual's ability to solve the problems they have. Most of the respondents still have a low ability to act to avoid transmission of tuberculosis. Magnitude is influenced by knowledge that can improve the ability to solve problems. Knowledge of the environment contributes to solving the problem of environmental pollution (13). Knowledge of transmission and improvement of health behavior in some respondents is still low. The existence of health promotion can increase efficacy and prevent risky behavior against disease transmission (14). Increasing individual knowledge will affect awareness and belief in the importance of implementing self-efficacy. Strength describes an individual's ability to survive in the problem at hand. If the individual has a strong determination, the individual will continue to try even though he experiences failure (7). In this study, the majority of respondents had a low ability to maintain a healthy life related to their condition which was very at risk for tuberculosis. Most of the respondents are still unable to maintain a healthy life in preventing the transmission of tuberculosis. Increasing self-efficacy and self-care

activity in TB care increases in the family empowerment process (15). A support system to maintain a healthy life can increase self-efficacy. Lifestyle is considered difficult due to lack of understanding and support from the closest people or environment (16). Generality is the experience of showing success in achieving goals. Experienced individual beliefs will be more motivated in problem solving (17). At risk for tuberculosis disease makes most respondents have low experiences such as wearing masks when interacting with clients who suffer from TB or doing clean living behavior.

## CONCLUSION

The results of the study stated that self-efficacy in people who were at risk for tuberculosis was still low. The lack of knowledge that contributes to the prevention of tuberculosis is still a problem, so programs or health promotions are needed to improve cognitive processes that will increase self-efficacy. Support from the environment and the closest people are needed so that family empowerment can increase self-efficacy. The limitations in this study were not known to the participants' prior knowledge in TB prevention which might affect self-efficacy.

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